

Federated Wireless Inc. Response to Ofcom's proposed Plan of Work 2020/21

Federated Wireless Inc. (Federated Wireless) hereby submits comments in response to Ofcom's proposed Plan of Work 2020/2021 and its plans to implement a fully automated authorisation approach for spectrum sharing. Federated Wireless commends Ofcom for its recognition of the importance of sharing to promote innovation and maximize the use of frequency bands that are critical to the delivery of wireless broadband services.

We appreciate the opportunity to share our experience in implementing automated dynamic spectrum sharing in the United States and offer our perspectives on how this same automated technology can be readily deployed to meet Ofcom's goals for the United Kingdom.

I. Background on Federated Wireless and Dynamic Spectrum Sharing

Federated Wireless is a U.S.-based wireless technology company that has been certified by the U.S. Government to manage dynamic sharing of the 3550-3700 MHz band, known as the Citizens Broadband Radio Service (CBRS), between incumbent military and commercial uses, as well as between different tiers of commercial uses on both a licensed and unlicensed basis. Commercial services launched in September of 2019 and today there are thousands of CBRS devices operating across the United States providing wireless broadband services via fixed wireless providers (WISPs), enterprise IT, hospitality, retail, real estate, industrial IoT, and transportation, among other sectors.

While the FCC's rules for CBRS are specific to the United States and its incumbent users, the Federated Wireless cloud-based, automated Spectrum Access System (SAS) is readily adaptable to new frequency bands and technologies. Once protection criteria for incumbent users are established and a database of these incumbent users is updated with the most current information, it is straightforward to adapt the dynamic shared access system developed for CBRS to operate in other frequency bands, such as those Ofcom has identified for sharing.

In fact, Federated Wireless will be demonstrating our SAS as part of a Department for Digital, Culture, Media & Sport Rural Connected Communities (RCC) 5G research and development project together with the University of Strathclyde, Cisco, and others.¹ We look forward to applying our technical knowledge and experience to the "5G New Thinking" project and supporting efforts to enable spectrum sharing and monitoring, neutral hosting, partnerships and B2B engagement models and to improve connectivity across rural areas throughout the United Kingdom.

II. Availability of Automated Spectrum Sharing Solutions

As mentioned above, Federated Wireless welcomes Ofcom's efforts to enable shared access to bands supporting mobile technology. We believe that a shared spectrum approach, in particular one involving dynamic shared technology combined with multiple tiers of commercial access, will achieve the goals that Ofcom has identified, namely to: a) promote deployment of private networks

¹ See <https://www.gov.uk/government/news/new-65-million-package-for-5g-trials>

that can facilitate industrial IoT applications; b) improve rural broadband connectivity through neutral host solutions; and c) address the challenges of urban and rural not-spots.

Federated Wireless applauds Ofcom for its vision and agrees with its assessment that an automated dynamic shared access approach would provide users with more flexibility and would enable more efficient use of available frequencies than would a manual, static approach. Given that dynamic shared access technology is already available from multiple vendors and has been thoroughly tested through a rigorous process involving multiple government agencies, incumbent users, industry associations and technology providers, we urge Ofcom to move as quickly as possible to adapt commercially available solutions to the bands that Ofcom has identified.

Automated and dynamic spectrum sharing technology is available today, is frequency band agnostic, and can readily provide Ofcom with a spectrum management tool that offers advantages to stakeholders over traditional approaches. These advantages include:

- Speed to market and agility of deployment;
- Seamless protection of incumbent users;
- Increased spectrum efficiency through opportunistic spectrum access on a geographic or time dependent basis; and
- Support for innovative business plans and the creation of a robust and sizeable ecosystem of suppliers and vendors;
- Flexibility to adjust protection criteria (whether more conservative or more liberal) as needed;
- Ability to adjust for future growth of both incumbent and new services.

III. Conclusion

Federated Wireless appreciates the opportunity to share its perspectives on automated dynamic shared spectrum technology and encourages Ofcom to work rapidly to implement an automated shared approach that enables both licensed and opportunistic access to spectrum. Such technology is available today and is being adapted to meet the unique challenges of the U.K. market. Federated Wireless stands ready to work together with Ofcom and industry to bring the benefits of automated dynamic sharing to the United Kingdom.